

March 10, 2005

Testimony of Dr. Ralph W. Hale

Joint Hearing of the Subcommittee on Commerce Trade and Consumer Protection and the  
Subcommittee on Health

Chairman of the Board, United States Anti-Doping Agency

Mr. Chairmen, Members of the Subcommittees, good morning, my name is Dr. Ralph Hale. Thank you for the opportunity to testify regarding this important health issue. Today, I am here as the Chairman of the Board of Directors of the United States Anti-Doping Agency. I am also a physician who has been practicing medicine for more than 40 years. USADA has been recognized by Congress as the independent, national anti-doping agency for Olympic and Paralympic sport in the United States. Our mission is to protect and preserve the health of athletes, the integrity of competition, and the well being of sport through the elimination of doping.

Recently USADA has received increased media attention for its role in the investigation into the existence and use by elite athletes of the designer steroid, THG. Designer steroids are an important concern for USADA. However, USADA is equally concerned about all anabolic steroids that are readily available in the United States. The availability of these anabolic steroids is a significant public health issue that transcends sport and places American consumers at risk.

The perils of anabolic steroid use are well known. In Olympic sport, the most notable, systematic state-supported program of doping with anabolic steroids was conducted by the East Germans from 1974 until the Berlin Wall fell. The documented side effects of steroids and steroid precursors among these East German athletes, particularly women athletes, are tragic. These side effects included damage to the liver and reproductive system, susceptibility to cancers, and permanent masculinization of women. It is also well known that men who abuse steroids and steroid precursors risk serious health consequences including gynecomastia, baldness, shrunken testicles, infertility and susceptibility to aggressive behavior or rage. For adolescents who use steroids the side effects can include all of the above, as well as a strong likelihood that natural growth will be arrested or otherwise detrimentally affected.

Let me address youth first. In a 2003 study of 48,500 students in the 8<sup>th</sup>, 10<sup>th</sup>, 12<sup>th</sup> grade by a group at the University of Michigan in conjunction with the National Institute on Drug Abuse and the U.S. Department of Health and Human Services, 2.5% of 8<sup>th</sup> graders, 3% of 10<sup>th</sup> graders and 3.5% of 12<sup>th</sup> graders had used steroids.<sup>1</sup>

A recent *Newsweek* report stated that 300,000 American Teenagers abuse steroids each year. In a 1998 Massachusetts based survey published in the *Journal Pediatrics*, 3% of middle school students had used steroids. This problem is increasing on an annual base. In June 2004, the CDC published figures on self-reported drug use called the Youth Risk Behavior Surveillance from 2001 to 2003 use of steroids went up 20% for men and 300% for girls. Of more concern among 12th graders 3.3% of girls and 6.4% of boys had used steroids once however 7.3% of ninth grade girls and 6.9% of ninth grade boys had already been using steroids.<sup>2</sup>

A recent Blue Cross and Blue Shield Association survey estimated that approximately 1.1 million youth between the ages of 12 and 17 have taken potentially dangerous performance enhancing drugs.<sup>3</sup> These are just a few of the ever increasing number of reports on the use of these dangerous compounds. And yet in the Blue Cross and Blue Shield Association study 76% of the teens could not identify any negative side effects from long-term use. These surveys are also increasingly being confirmed by admissions of high school athletes who have used steroids. For example, nine football players from Heritage High School in Texas recently admitted to using steroids. Of significance is the fact that lack of testing for steroid use by high school athletes' results in lack of detection, so the true incidence is unknown.

Why then do teens and adults use steroids? Steroids increase muscle mass and thus size and strength. In a sport culture where "Winning at all costs" is the standard and the resultant success can result in money, fame, and more money, the use of steroids is viewed as an easy way to attain this goal. They also see their sport heroes using steroids and believe this is their answer well. Steroids are also viewed as a way to increase healing of injuries. This is especially true with muscular skeletal injuries. A recent finding is the use of these compounds to make individuals "look better." Even non-athletes appreciate the muscular body of the athlete. I still

remember the Charles Atlas advertisement in comic books when I was growing up. Many thousands of young men sent in for the Charles Atlas system. Now they believe they just have to use steroids.

USADA is concerned, with the Olympic level athlete and maintaining a clean and equal playing field. This is the basis of our drug-testing program, which is designed to deter use of performance enhancing drugs. In addition we believe education programs for the athletes, from youth to Olympic level, must also be a key component of addressing the problem in the U.S. USADA also supports an active research program related to the use of performance enhancing drugs.

However, all of our efforts will not totally succeed until all sports organizations agree to fully participate in programs to deter use of performance enhancing dangerous steroid drugs. Programs that fail to test or that test sporadically and infrequently are not a deterrent. Programs with minimal sanctions only result in minimal success. Unfortunately for many athletes, it is simply a matter of cost-benefit analysis and because these athletes are focused on current success, they discount or ignore the long-term consequences of steroid use that may not surface until much later in life. Is the cost of being caught and disciplined greater than the rewards gained from using the compounds? You will note that the side effects, although serious and life threatening, are not included in the formula. The reason is that in the end, if they were considered, the cost side of the equation would be enormous and does add a significant burden to the health care system.

Let me again emphasize the potential side effects of steroids as they affect adults. In men steroid use has been associated with reduced sperm count, infertility, impotence, gynecomastia (increased breast size), enlarged prostate, urinary and bowel problems, sleep problems, baldness, left ventricular hypertrophy of the heart, liver damage, stroke, sudden mood swings, rage and aggression. Withdrawal can result in depression and suicide. These psychological effects can be even more severe in adolescents who are going through the upheavals associated with teenage adjustment. In women, many of these same problems can occur as those in men but also include

as breast reduction, increased facial and body hair, deepening of the voice, menstrual problems, clitoral enlargement, acne and heart disease.

I am including reference on Anabolic steroids for the committees' information that outline the health hazards. In addition, I ran a Medline of the Adverse Effects of Anabolic Steroids following the notice of the hearing. There were more than 50 references in this initial review.

I would like to thank this Committee for its time and its interest in this important public health issue and for inviting me to share my thoughts on the dangers posed to American athletes and non-athletes by the use of steroids.

<sup>1</sup> Sheltra, Patrick. "Stomping Steroids: Districts Can't Afford to Test Their Athletes." Inland Valley Daily Bulletin 13 Feb 2005

<sup>2</sup> De'Noon, Daniel. "Steroid Use: Hitting Closer to Home; Olympic scandals spot light performance-enhancing drugs as number of kids use them." 4 August 2004 <http://www.WebMd.Com>

<sup>3</sup> Blue Cross and Blue Shield Association Survey Projects 1.1 million Teens have used Potentially Dangerous Supplements and Drugs. 31 October 2003

**Attachments:**

1. Current Comment, April 1999, Anabolic Steroids
2. National Institute on Drug Abuse, Research Report Series, Anabolic Steroid Abuse, “What are anabolic steroids?”
3. US Department of Justice, Drug Enforcement Administration, A Guide for Understanding the Dangers of Anabolic Steroids, “Anabolic Steroids – A Dangerous and Illegal Way to Seek Athletic Dominance and Better Appearance”
4. International Journal of Legal Medicine, (1998) 111:261-264; R Hausmann, S. Hammer, P Betz, “Performance enhancing drugs (doping agents) and sudden death – a case report and review of the literature”
5. American College of Sports Medicine – Position Stand (MSSE, 19:5, 1987, pp.534-539), “The Use of Anabolic-Androgenic Steroids in Sports”
6. NIDA InfoFacts, National Institute on Drug Abuse, National Institutes of Health USDHHS. (March 2004, pp.1-3) “Steroids (Anabolic-Androgenic)”